



State of New Jersey
Department of Environmental Protection and Energy
Division of Responsible Party Site Remediation

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Scott A. Weiner
Commissioner

Karl J. Delaney
Director

Mr. Rich Puvogel
Remedial Project Manager
USEPA
26 Federal Plaza
New York, New York 10278

195 OCT 1991

Dear Mr. Puvogel:

Re: UOP Inc., East Rutherford Township, Bergen County
Area 1A and 2 Ground Water IRM
Proposed Plan

I have forwarded for your review the proposed plan for the UOP ground water Interim Remedial Measure (IRM). The proposed plan presents Ground Water Collection, On-site Treatment of Collected Ground Water, and Discharge to Ground Water and/or Surface Water (Ackerman's Creek) for approximately three (3) years as the preferred interim remedy.

Please send me any comments by October 25, 1991. This due date is critical since the DEPE has scheduled the public comment period to run from November 1 to November 30, 1991. If you have any questions feel free to call me at (609) 633-1455.

Sincerely,

Joseph Freudenberg, Case Manager
Bureau of Federal Case Management





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DEPE Announces Proposed Plan

This Proposed Plan identifies the preferred Interim Remedial Measure (IRM) for preventing contaminated ground water from discharging to Ackerman's Creek at the Universal Oil Processing Inc. (UOP) site in East Rutherford Township, Bergen County, New Jersey. This document is issued by the New Jersey Department of Environmental Protection and Energy (NJDEPE), the lead agency for site activities. The United States Environmental Protection Agency (USEPA) has served as a support agency for activities performed at the UOP site. A final decision on the Interim Remedy for the site will be made only after the public comment period has ended and the information submitted during this time has been reviewed and considered.

NJDEPE is issuing this Proposed Plan as part of its public participation responsibilities under section 117(a) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund). This document summarizes information that can be found in greater detail in the Remedial Investigation Report, IRM Work Plan, and other documents contained in the administrative record file for this site. The NJDEPE encourages the public to review these other documents in

order to gain a more comprehensive understanding of the site and Superfund activities that have been conducted there. The administrative record, which contains the information upon which the selection of the response action will be based, is available at the following locations:

East Rutherford Memorial Library
143 Boiling Springs Avenue
East Rutherford, NJ 07073
(201) 939-3930

East Rutherford Municipal Building
1 Everett Place
East Rutherford, NJ 07073
(201) 933-3444

NJ Department of Environmental Protection and Energy
Division of Publicly Funded Site Remediation
Bureau of Community Relations
401 East State Street, CN 413
Trenton, NJ 08625

Contact: George Tamaccio (609) 984-3081

DEPE and EPA may modify the preferred alternative based on new information or public comments. Therefore, the public is encouraged to review and comment on the alternative identified here.

THE COMMUNITY'S ROLE IN THE SELECTION PROCESS

NJDEPE is soliciting input from the community on the cleanup methods proposed for each Superfund response action. The NJDEPE has set a public comment period from November 1, 1991 to November 30, 1991 to encourage public participation in the selection of an interim remedy for the UOP site. The comment period includes a public meeting at which the NJDEPE will

discuss the RI Report, the IRM Work Plan, and the Proposed Plan. At this meeting the NJDEPE will also answer questions, and accept oral and written comments.

The public meeting for the UOP Inc. site is scheduled for November 18, 1991 at 7:00 PM and will be held at the East Rutherford Municipal Building, 1 Everett Place, East Rutherford, New Jersey.

Comments will be summarized and responses provided in the Responsiveness Summary section of the Record of Decision (ROD). The ROD is the document that presents NJDEPE's final selection for a response action. Written comments on this Proposed Plan should be sent by close of business November 30, 1991 to:

Grace L. Singer, Chief
Bureau of Community Relations
NJ Department of Environmental Protection and Energy
401 East State Street, CN 413
Trenton, New Jersey 08625-0413
(609) 984-3081

SITE BACKGROUND

The UOP Inc. site occupies 75 acres in East Rutherford Township, Bergen County, New Jersey, bounded to the North by Matheson Gas, to the East by Berry's Creek, to the South by commercial properties, and to the West by NJ Route 17 (See Figure 1). A portion of the site is located in the Hackensack Meadowlands District, which is administered, in part by the Hackensack Meadowlands Development Commission.

Prior to 1932, the site was a tidal marsh. Over the years much of the land has been covered with fill material, however, the site still retains some unclaimed marshland. The other significant natural feature on site is Ackerman's Creek, a tributary to Berry's Creek and part of the Hackensack River System.

The site was originally occupied in 1932 by Trubeck Laboratories, an aroma chemicals manufacturer. In 1955 Trubeck began handling waste chemicals and operating a solvent recovery process. In 1956 Trubeck began operating a waste water treatment plant for process wastes and in 1959 waste lagoons associated with the plant were first utilized. UOP purchased Trubeck in 1960 and operated the facility until its closing in 1979. During the years of site operation, both the waste water lagoons and routine handling of raw materials and wasted resulted in the release of various contaminants to the soil and shallow ground water. In 1980 all on-site buildings and associated structures were demolished. Allied-Signal assumed environmental responsibility with the 1985 merger of Allied Corp. and Signal Corp, of which UOP had been a subsidiary.

NJDEPE has overseen site activities at the UOP site since 1982 under various Administrative Orders and Administrative Consent Orders (ACO's). Current site work is being performed under a May 23, 1986 ACO between NJDEPE and UOP.

To facilitate investigations, the UOP site has been divided into six areas: Areas 1, 1A, 2, and 5 are the uplands portion of the site; Area 3 is the former waste lagoons associated with the waste water treatment plant; and Area 4 is the on-site stream channels (see Figure 2). In 1986 UOP performed a Remedial Investigation (RI). This investigation focused on the uplands area of the site and excluded on-site streams and the waste lagoons. The investigation made several conclusions concerning site conditions at Areas 1, 1A, 2, and 5:

1. Areas 1, 1A and 2 samples indicate the presence of volatile organic compounds (VOCs) in the following concentrations:

<u>Area</u>	<u>Total VOCs in Ground Water</u>	<u>Total VOCs in Soil</u>
1	BDL* to 24 ppm	BDL to 74.8 ppm
1A	BDL to 66 ppm	BDL to 1747 ppm
2	BDL to 210 ppm	BDL to 2108 ppm

* BDL = Below Detection Limit

2. Base/Neutral and Acid Extractable (B/N/A) Compounds are present in soils and ground water sitewide. However, it should be noted that impact from these compounds on ground water is not as severe as the impact from the volatile organic compounds. The range of B/N/A's in soil is BDL to 1000 ppm (with the highest concentrations being found in Area 5). The range of

B/N/A's in ground water is BDL to 21 ppm.

3. Area 5 soils are contaminated by PCB's and metals, primarily lead. PCB's in Area 5 were detected in concentrations of up to 480 ppm, while lead concentrations ranged from 7 to 1820 ppm. In addition to the PCB contamination in Area 5, it should be noted that a small area of PCB contaminated soil is present in Area 2.

A Feasibility Study (FS) to determine the best method to remediate Areas 1, 1A, 2 and 5 is currently under review by the NJDEPE.

In the Summer of 1990, the NJDEPE required the responsible party to excavate the two waste lagoons (Area 3) and dispose the lagoon material at an off-site licensed facility. This action was completed in September 1990. During that activity, NJDEPE personnel noted what appeared to be a contaminant seep from Area 1A discharging to Ackerman's Creek. The NJDEPE required the responsible party to investigate the source of this seep. This request led to the submittal of the Seep/Sewer Network Investigation Work Plan and Report. This investigation showed that ground water in Areas 1A and 2 is discharging volatile organic compounds to Ackerman's Creek. This led the NJDEPE to require the responsible party to implement the IRM to prevent contaminated ground water from discharging to Ackerman's Creek. The IRM Work Plan evaluates the best method for implementing

this IRM.

SCOPE AND ROLE OF PROPOSED RESPONSE ACTION

Due to the complex nature of the problems at the UOP site, the DEPE has divided the work into three manageable components called "Operable Units." These are as follow:

- * Operable Unit One: Areas 1, 1A, 2 and 5 (Uplands Areas)
- * Operable Unit Two: Area 3 (The waste lagoons)
- * Operable Unit Three: Area 4 (Stream channel sediments)

The DEPE has already implemented an IRM for Operable Unit Two which consisted of the excavation and off-site disposal of the waste lagoons. The IRM currently being proposed is designed to prevent contamination from reaching Ackerman's Creek. The next phase of site activities will address a permanent remedy for Operable Unit 1. The Feasibility Study (FS) for a permanent remedy is currently under review by the DEPE and a decision is expected to be made in the Spring of 1992. Subsequent actions to be taken at the site will address the final remedies for Operable Units Two and Three.

SUMMARY OF SITE RISKS

The purpose of this IRM is to prevent further degradation of Ackerman's Creek. While this action will reduce short-term risk created by the impact of contamination on Ackerman's Creek, it is not designed to eliminate long-term risks associated with the site. Long-term risks will be eliminated through the implementation of a final remedy for the UOP site.

The source area of contamination effecting Ackerman's Creek appears to be soils contaminated with volatile organic compounds located in Areas 1A and 2. The contaminant pathway to Ackerman's Creek is the discharge of contaminants from soil to the shallow ground water on site and the discharge of this contaminated ground water to the creek. The preferred IRM limits this pathway by preventing the contaminated ground water from discharging to Ackerman's Creek and treating the ground water to remove contaminants. In addition, a portion of the treated ground water will be used to flush out soil contamination acting as a source of ground water contamination.

SUMMARY OF REMEDIAL ALTERNATIVES

Many alternatives for remediation of Operable Unit 1 are being evaluated in the Feasibility Study for Areas 1, 1A, 2, and 5. However, since at this time NJDEPE is proposing only an interim action for Operable Unit 1, only limited interim action

alternatives are presented here. The two alternatives analyzed for interim action to control migration of contaminants are presented below. It should be noted that although only two remedial alternatives are being considered here, many remedial technologies were screened to develop the alternatives.

Alternative 1: No Further Action

Capital Cost:	\$	0
Annual Operation and Maintenance (O & M) Costs	\$	0
Present Worth	\$	0

Months to Implement: 0

Superfund regulations require that the No Action alternative be evaluated at every site to establish a baseline for comparison. Under this alternative, the NJDEPE would take no interim action at the site to reduce the migration of contaminants to Ackerman's Creek.

Alternative 2: Ground Water Collection , On-site Treatment of Collected Ground Water, and Discharge to Ground Water and/or Surface Water (Ackerman's Creek) for approximately three (3) years.

Capital Cost:	\$422,000
Annual O & M:	\$147,000

Present Worth: \$863,000 (including 3 years O & M)

Months to Implement: 6

Major features of this alternative include : installation of trenches to collect ground water, construction of a ground water treatment plant to treat collected ground water, and discharge of the treated ground water to the shallow on-site aquifer and/or Ackerman's Creek. The treatment plant would be designed to meet New Jersey Pollution Discharge Elimination System (NJPDDES) requirements for the discharge of treated ground water to both the on-site aquifer and Ackerman's Creek.

EVALUATION OF ALTERNATIVES

The preferred alternative is to take interim action at the site by implementing Alternative 2. This alternative is consistent with the overall strategy of remediating the UOP site.

It appears that the preferred alternative best satisfies the nine criteria for selecting a Superfund Remedial Action. This section profiles the performance of the preferred alternative against the criteria which apply to this interim action, noting how it compares to the other option under consideration.

Overall Protection of Human Health and the Environment:

This criterion addresses whether or not a remedy provides adequate protection and describes how risks posed through each pathway are eliminated, reduced, or controlled through treatment, engineering controls or institutional controls.

Alternative 1 may not be protective of human health and the environment since contaminants would continue to migrate from the soils and shallow aquifer to Ackerman's Creek. Alternative 2 would protect human health and the environment in the short term by reducing further migration of contaminants through the above migration pathways until a final remedy is in place.

Compliance with ARARs:

This criterion addresses whether or not a remedy will meet all of the applicable or relevant and appropriate requirements (ARARs) of Federal and State environmental statutes (other than CERCLA) and/or provide grounds for invoking a waiver.

There are several types of ARARs: action-specific, chemical specific, and location-specific. Action-specific ARARs are technology or activity-specific requirements or limitations related to various activities. Chemical-specific ARARs are usually numerical values which establish the amount or concentrations of a chemical that may be found in, or discharged to, the ambient environment. Location-specific requirements are

restrictions placed on the concentration of hazardous substances or the conduct of activities solely because they occur in a special location.

CERCLA provides that if an interim measure is conducted, ARARs may be waived, since these requirements will be achieved upon completion of the permanent remedy. Because Alternative 2 constitutes an interim action, final cleanup levels for soil and ground water do not have to be achieved, but will be addressed in the final remedy. However, certain action-specific requirements, discussed below, will be attained as part of the implementation of Alternative 2.

Action taken with Alternative 2 will comply with effluent limitations for any discharge from a ground water treatment plant to Ackerman's Creek and the on-site shallow aquifer. In addition, the treatment plant will be designed and operated in compliance with Federal and State air emissions requirements.

Long-term effectiveness:

This criterion refers to the magnitude of residual risk and the ability of a remedy to maintain reliable protection of human health and the environment over time, once cleanup goals have been met. Given that this is an interim action, effectiveness need only be maintained for the duration of the interim action, which is expected to be no more than three years. Therefore this criterion will evaluate long-term effectiveness over a

three year period.

Alternative 1 is not effective in the long or short term.

Alternative 2 would be effective in reducing the migration of contaminants from the shallow zone of the site, once implemented, and should maintain its effectiveness for the expected duration of the interim remedial action.

Reduction of Toxicity, Mobility or Volume:

This criterion addresses the degree to which a remedy utilizes treatment to reduce the toxicity, mobility, or volume of contaminants at the site.

Alternative 1 does not reduce the toxicity, mobility, or volume of contaminants at the site. Alternative 2, which involves the treatment of contaminated ground water and recharge of the treated water through contaminated soils, should reduce the volume of contamination in soil and shallow ground water.

Short-Term Effectiveness:

This criterion refers to the time in which the remedy achieves protection, as well as the remedy's potential to create adverse impacts on human health and the environment that may result during the construction and implementation period.

Alternative 1 presents the least short-term risks to on-site workers since no construction activities are involved in

implementing the No Action alternative. However, it will not reduce any of the existing risks at the site. Alternative 2 will require the execution of health and safety protection measures during the remedial construction to adequately protect workers. These measures may include requirements for protective clothing and respiratory protection. Alternative 2 does not present health and safety problems which cannot be successfully addressed by available construction methods. Neither alternative should present short-term risk to the community. There would be no short-term risks due to the isolation of the site from the local population.

Implementability:

Implementability is the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement the selected alternative.

Alternative 1 is the simpler alternative to implement from a technical standpoint since it requires no additional work effort. The operations associated with Alternative 2 (construction of collection trenches and a ground water treatment system) generally employ well established, readily available construction methods. Administratively and technically, the treatment system will need to meet the requirements for discharge to the shallow ground water and Ackerman's Creek. Alternative 2 is implementable from an administrative and technical perspective.

Cost:

Cost includes capital and operation and maintenance (O&M) costs.

Alternative 1, No Action has no cost associated with its implementation. The cost estimate for Alternative 2 is \$863,000, based on the assumption that approximately 15,000 gallons of ground water per day will be treated.

USEPA Acceptance:

USEPA acceptance indicates whether, based on its review of the Remedial Investigation, IRM Work Plan, and this Proposed Plan the USEPA concurs with, opposes, or has no comment on the preferred alternative. The USEPA has reviewed the documents pertinent to this IRM including the Remedial Investigation Report, IRM Work Plan, and this Proposed Plan and supports the implementation of this IRM.

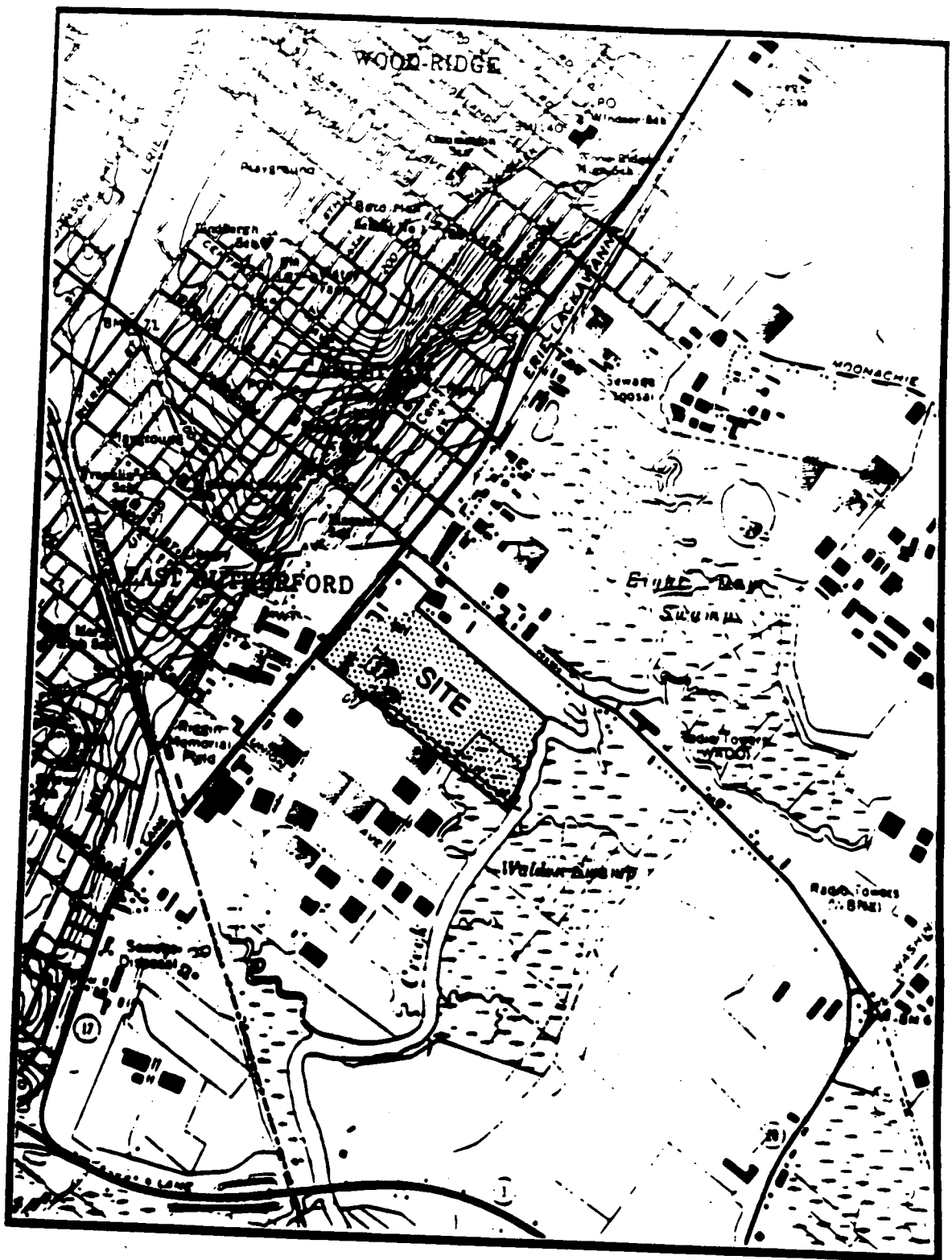
Community Acceptance:

Community acceptance will be assessed after the public hearing in the Record of Decision (ROD) following a review of the public comments received on the RI Report, IRM Work Plan, and the Proposed Plan.

SUMMARY OF THE PREFERRED ALTERNATIVE

In summary, Alternative 2 would achieve risk reduction in the

short term by minimizing migration of contaminants from the site. Alternative 2 would augment any future remedy which will be selected to address the contaminants remaining at the site. Therefore, Alternative 2 is believed to provide the best balance of tradeoffs with respect to the evaluation criteria and is proposed by the NJDEPE and USEPA as the preferred alternative.



0 2000
Scale in Feet

FIGURE 1
Site Location Map

